

NORTH PACIFIC OCEAN

By WILLIS E. HURD

Following upon the abnormal activity of the Aleutian low for the season during the previous month, July witnessed its practical disappearance and a settling of pressure into stable summer conditions over the eastern part of the North Pacific Ocean. Apparently throughout all this area pressures were slightly above normal. The anticyclone west of the United States was firmly established during July, and remained undisturbed from intrusion by any middle latitude cyclones. This quiet state of atmosphere, with prevailing high-pressure conditions, extended across the ocean to the coast of Japan; hence no gales of consequence occurred over the main body of water, only one or two instances of winds attaining force 8 having been reported outside of lower middle latitudes and the tropics.

The following table of pressures at several island and coast stations in west longitudes gives an idea of the general conditions in this region:

TABLE 1.—Averages, departures, and extremes of atmospheric pressure at sea level at indicated hours, North Pacific Ocean, July, 1927

Stations	Average pressure	Departure from normal	Highest	Date	Lowest	Date
	Inches	Inch	Inches		Inches	
St. Paul ¹	29.93	+0.08	30.20	28th	29.58	6th.
Kodiak ¹	29.99	+0.03	30.24	1st	29.60	21st.
Midway Island ¹	30.10	+0.02	30.28	12th	29.90	25th.
Honolulu ¹	30.05	+0.03	30.11	21th	29.95	21st.
Juneau ¹	30.13	+0.08	30.34	21st	29.88	3d.
Tatoosh Island ¹	30.11	+0.04	30.31	9th	29.84	23d.
San Francisco ¹	29.98	+0.03	30.17	8th	29.84	14th.
San Diego ¹	29.94	+0.05	30.04	8th	29.85	23d.

¹ P. m. observations only.
² 28 days.

¹ A. m. and p. m. observations.
² Corrected to 24-hour mean.

In lower latitudes the general serenity was interrupted only by two typhoons in the Far East, and by two or three brief-lived cyclones off the Mexican west coast. The subjoined article by Rev. José Coronas, S. J., of the Manila Observatory, describes the typhoons. The report of the American steamer *Patrick Henry*, mentioned in the article, will be found with others in the accompanying gale and storm table, as also the report of the American steamer *Dewey*, which rode out the same typhoon while in Haitian Strait, near the northern entrance to Taiwan Channel.

The first disturbance of the month off the Mexican coast occurred on July 1. This storm was very severe within narrow limits, the American tank steamer *W. S. Miller*, in 20° 08' N., 106° 41' W., at 2 p. m., reporting an ESE. gale of force 11, with blinding rain, and a minimum pressure of 29.56 inches, after which the wind rapidly lessened. The American steamer *Steel Mariner*, a short distance to the southeastward, with a maximum wind force of 8, remarked upon the abruptness with which the gale came on.

On July 5 the American steamer *Eelbeck*, southward bound, ran into the southwest quadrant of a cyclone near 17° N., 114° W., the wind being northwest. At 1 a. m. of the 6th, in 16° 40' N., 112° 30' W., the wind changed to west, force 5, pressure 29.70, which was the lowest observed; at 2 a. m. the wind changed to south, force 7, and at 3 a. m. to south-southwest, force 9. The wind thereafter continued from south-southwest, force 8, until shortly after 6 a. m., when it moderated. The cyclone was evidently proceeding in a west-northwesterly direction seaward, whereas the storm of the 1st continued closely hugging the coast.

A third cyclone, of unknown intensity, was reported on the 28th south of the Gulf of Tehuantepec, moving eastward.

Aside from the cyclonic gales, the only other high wind reported from this general region was that experienced at La Libertad, Salvador, on the 23d, by the Panaman motor ship *City of San Francisco*, when a "chubasco came up from ESE., with force up to 8, continuing from 9:50 to 10:15 p. m."

The observer at Honolulu reported the greatest average wind movement on record for the month of July, it being 11.1 miles. The maximum velocity, however, was only 32 miles from the east, on the 26th. The prevailing direction was east.

One of the most important meteorological features of the month was the frequent fog which banked heavily over the whole northern part of the ocean, and extended in lesser degree down the Asiatic coast to the thirtieth parallel, and down the American coast nearly to the twentieth. The Japanese steamer *Hoyeisan Maru*, Yokohama to San Francisco, reported "always dense foggy" from July 3, in 36° N., 142° 11' E., to July 15, in 45° 23' N., 143° 50' W. The thickest and most frequent fog was reported from Bering Sea. At St. Paul—data taken from a. m. and p. m. observations only—it occurred on 25 days, which is 80 per cent of the number for the month. Along the upper steamer routes west of 170° W., in which region June and July are the months of maximum occurrence, fog was next most frequent, occurring on 20 to 45 per cent of the days.

Tropical cyclone of June 14-18, 1927, off the west Mexican coast.—Data which were received by the Weather Bureau too late for inclusion in the North Pacific weather report for June, indicate that a small tropical cyclone of moderate violence passed up the west coast of Mexico about the middle of the month. According to the Mexican Weather Maps, the cyclone was first observed as a depression centered near 14° N., 100° W., on June 14. It moved northwestward and disappeared apparently in the Gulf of California on the 18th. In the following report to the Hydrographic Office, the American tanker *Robert E. Hopkins*, Balboa to San Pedro, furnished the only vessel account of the disturbance yet received:

June 16, 1927 (noon position, lat. 17° 56' N., long. 103° 08' W.) at 11 a. m., experience fresh NE. wind, barometer 29.58, and wind increasing, with swell coming in all directions. By noon wind force was 9 with heavy, confused sea. Vessel was hove to. By 0:45 p. m. wind calmed down, then at 1:15 p. m. wind came from SW., force 9, heavy sea; lasted half hour, when it moderated to a gentle breeze by 6 p. m., but still having moderately heavy SSW. swell.

TYPHOONS AND DEPRESSIONS

TWO TYPHOONS IN THE FAR EAST DURING JULY, 1927

By Rev. JOSÉ CORONAS, S. J.

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There have been only two typhoons over the Far East during this month of July—one over Formosa and another over the northern part of the Philippines.

The Formosa typhoon, July 14 to 19.—According to weather reports from the steamer *Patrick Henry*, this typhoon existed already in the early morning of July 14, near 15° latitude N., between 131° and 132° longitude E. It moved WNW. toward Formosa. At 8 a. m. of the 15th the steamer *Tjikandi* met the center of this typhoon about 250 miles to the E. by S. of Balintang Channel. The steamer received a most severe buffeting and had to turn back to Hong Kong for repairs.

The center traversed the southern part of Formosa in the evening of July 16, and entered the China coast very near to the south of Amoy in the morning of July 17.